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THE COMPETE PROJECT

Competitive Private Enterprise and Trade Expansion

Position Paper

**STRENGTHENING THE EXPORT COMPETITIVENESS OF
UGANDA'S FISH SECTOR**

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TABLE OF CONTENTS

The Challenge	2
The Problem.....	2
The Opportunity.....	3
The Strategy	3
Action Steps	4
The Participants and their Roles	6
Responsibilities for Developing a National Export Initiative for the Fish Sector	6
Short and Longer-Term Work Plan	7
Expected results from the National Export Initiative for fisheries	8
Disclaimer	8

ANNEXES

ANNEX I	9
ANNEX II.....	16

STRENGTHENING THE EXPORT COMPETITIVENESS OF THE FISHERIES SECTOR

The Challenge

Uganda's fishing industry constitutes its second most important export sector. Uganda's fish exports, primarily Nile Perch (Lates Niloticus), are highly valued and competitive in world markets. The natural resources of Lake Victoria, if properly managed and preserved, will continue to provide Uganda with a rich source of these fish products, and contribute to foreign exchange earnings, local employment and income generation for the fishing population and fish processors. Possessing 41% of the Lake and having developed state-of-the-art fish processing and sanitation testing facilities, the sector should be able to utilize this resource to its maximum sustainable capacity.

Fish exports currently earn approximately \$60 million for the country, or 7% of total exports. *It is estimated that the maximum sustainable yield of the Lake's resources in Nile Perch will permit exports worth around \$100-\$120 million.* Therefore, the fishing industry, based on current resources, should have the potential of doubling its revenues and expanding its benefits well beyond the estimated 700,000 people who currently live off of fishing and fish processing.

To realize this sustainable yield, however, *proper environmental and stock management of this natural resource is vital.* Uganda must take integrated action with its neighbors, Kenya and Tanzania, to manage this valuable natural resource.

Even with good stock and environmental management, this resource is finite. Given the capacity limitations, *Uganda must protect its existing stock and look for new sources of fish. Similarly, Uganda's fisheries need to examine the potential for product and market diversification that it can realize from its current production and processing.*

The Problem

Preservation and management of fisheries resources remain a major problem for the sector. Environmental degradation and poor, unregulated fishing practices threaten the sustainability of the resource. Effluents from untreated waste, as well as the run off of herbicides and fertilizers from agriculture in the region, pose a serious threat to the sector.

Poor fishing practices by local fishermen continue. The 'line hook' method of fishing is not selective, capturing both breeding females and young fish less than 18 inches in length. These fishing methods continue to threaten stocks. In extreme cases, some fishing communities are known to use explosives and poisons to produce fish for local markets.

Maintenance of the quality of the exported product needs to continue. The ban on Ugandan exports by the European Union in 1999 pointed out the dangers of unregulated fishing and fish processing. Although no cases of infected perch were discovered, the ban prevailed until such a time when testing could be completed. Quick, forthright action by the sector to establish sound testing and certification of the quality of processed fish that would meet international standards succeeded in having the ban lifted.

The Lack easily accessible landing facilities and infrastructure has led to the loss of fish for Ugandan processors. A significant portion of fish caught in Ugandan waters is landed on Kenyan facilities. While 41% of the Lake lies in Ugandan territory and 11% in Kenyan territory, Kenya processes 180,000 metric tons compared to 110,000 tons in Uganda. Much of this is due to the lack of landing facilities in Uganda along the northeastern shores of Lake Victoria.

A large portion of harvested perch in Uganda (67%) is not processed into an exportable product. There is significant wastage, and foregone export receipts, in Uganda's processing techniques. Processing for export is limited largely to fillets, which constitutes only 33% of the tonnage harvested. Much of the remaining portion, which could be processed for markets other than the fillet market, is sold off on the domestic market as low value products, even though demand for other parts of the fish is strong in areas such as Asia.

The Opportunity

Ugandan white fish, namely Nile Perch, is highly valued in developed country markets where quality white fish can be sold at high prices. In Europe, current fishing quotas for cod, as well as health concerns with traditional meat products, has intensified demand for high quality white fish and cause prices to rise rapidly. This trend is unlikely to abate.

Furthermore, Uganda is blessed with outstanding inland water resources well suited for the development of fish cage farming and aquaculture. *Fish farming offers significant potential for product expansion and diversification*, both in Lake Victoria and other inland waterways. Exploiting this potential, however, will require technical assistance and capital investment.

Modified and diversified fish processing can provide new sources of exports. Fish parts currently sold at low prices on the domestic market can be converted into medium-value frozen products for export to non-traditional international markets such as the Far East.

The Strategy

To strengthen the competitive position of Uganda's fishing industry, the sector must focus on several key elements of widely-recognized international competitiveness models. The models usually refer to the four critical components as being (1) demand, (2) factors of production, (3) the clusters of economic activities, and (4) strategies for development. Uganda's fishing sector needs to incorporate each of these considerations into its efforts to ensure the competitiveness of the sector.

Market demand for high quality white fish, processed and transported according to recognized international standards, is likely to remain strong for years to come providing

exporters with high returns. Even during the European Union ban on Ugandan exports, local exporters were able to find alternative markets. The industry must therefore continue to assure the quality for its product by maintaining the highest health standards both at the harvesting and processing level.

Market demand for other products from these fish resources is strong, but has not been exploited by Ugandan processors. Much of Uganda's harvested fish is sold off at a low price on local markets, largely because the sector has not investigated alternative markets to chilled or frozen fish fillets. Large markets for medium-value products other than fillets exist around the world that the fisheries sector has not tapped into. Market research and contact with potential customers needs to be part of a future strategy.

With market demand strong, Uganda's foremost need is to focus on its factors of production, namely its fish resources and their health and preservation. *Uganda's strategy must therefore be to preserve this resource by rigorous enforcement and to ensure that fish harvesting and processing meet the highest standards. Therefore, environmental management as well as adherence to the strictest health standards becomes the critical requirements in the export competitiveness strategy for this sector.*

Management of the resource in Lake Victoria is vital and requires trilateral action on the part of all three countries. *Uganda, Kenya and Tanzania have mutual interests in actions that ensure good stock management and regulated fishing practices. Efforts are ongoing, but Uganda's competitiveness strategy must include strong demands that this cooperation be strengthened and that regulations be enforced.*

Uganda must look beyond the existing resource base for future fish production and harvesting. *The maximum sustainable yields from Lake Victoria will soon be reached at the current pace. To expand beyond this present resource, Uganda must look to fish farming and aquaculture potential by developing fish cage technologies that can be used effectively by the fishing population, not only in Lake Victoria but in inland waterways as well. Emphasis must be place on technology development, environmental protection, human resource development, and credit facilities.*

Developing cooperation between the fish harvesting, handling, processing, and transport activities of the fisheries 'cluster' must be given priority attention in the strategy. *A 'national export initiative' for the fisheries sector must draw attention to developing cohesion and cooperation among different elements in the sector. Information dissemination must be fostered, particularly to the fish communities that often are isolated from the processors and know little of market standards. Communications channels must be developed.*

Action Steps

A series of action steps are required, both in the short-term (first year) and medium to long term (two to five years). These steps may be categorized as follows:

- *Actions must be taken to preserve and maintain resources*

Fish stocks in Lake Victoria and elsewhere are a finite resource that must be protected. Policies and regulations need to be developed and strengthened in Uganda to foster enforceable stock management, optimum harvesting practices, and environmental protection of the Lake and inland waterways. Research is needed on the reproductive biology of Nile Perch to better understand breeding and spawning patterns.

Similarly, laws and regulations must be studied; passed, and enforced that are designed specifically to regulate use of the Lake's resources. Public and private consultation is needed to build consensus and mobilize public support for these management strategies.

Similarly, trilateral negotiations with neighboring countries must continue to ensure that all countries exploiting the resources of Lake Victoria play by similar rules and undertake strong enforcement measures. A tripartite action plan should be the product of a high-level conference on protecting the fisheries resources of the Lake.

- *'New product' resources must be developed*

Development of new resources through fish farming techniques is required over the long term to permit Uganda's fisheries to continue to grow and be self-sustaining. Research into appropriate technologies, locations, and systems for fish cage farming and aquaculture. A design for this development is required to expand Uganda's product base for the future.

- *Products for new markets must be investigated and developed.*

Market demand exists for types of fish products other than chilled and frozen fillets in many parts of the world that Ugandan processors have not yet investigated. Research and contacts with future customers need to be undertaken to identify new markets for fish products and by-products that Uganda currently produces in abundance but does not channel toward export markets.

- *Infrastructure development for traditional and new fish products*

Steps to improve physical infrastructure must be taken, both for continued exploitation of existing fish products, but also for the development of new products. These include, for example, landing and receiving facilities for fish handlers, boats and ice rooms and ice plants for handlers and collectors for the harvesting and transport of fish. For new product development, such as fish cage farming, new equipment and systems are needed, which need to be addressed by both public and private sectors.

- *Information and human resource development is needed to build fisheries' competitiveness*

Information and training at all links in the production chain will be needed to improve harvesting and processing practices. First, in traditional fish harvesting, fishing practices needed to be improved at the harvesting level so that the resource is not damaged or wasted. This requires information dissemination techniques that are adapted to this unique community.

Second, development of fish farming will require major education and demonstration efforts, adapted for these communities, to impart ‘best practices’ to the population that will be farming fish. Information and institutions need to be mobilized to assist in this process.

- *Finance and credit facilities must be expanded to support the fishing sector*

New equipment is required for both traditional fishing and fish farming. Credit facilities aimed at the fisheries sector must be provided with proper consideration of the natural limitations of fishing communities to meet traditional borrowing requirements.

- *Institutions are needed to work within the fishing communities and communicate both information and technologies*

Like both rural and commodity sectors, development of formal associations is difficult. However, as part of a competitiveness policy, information and training must be undertaken throughout the sector to achieve the objectives of a strong economy for these communities. Different institutional forms need to be developed, such as fishermen associations, fish handler groups, etc, through which information can be channeled.

The Participants and their Roles

The fisheries export sector includes several levels of participants including private and public sectors. The government has a critical role in the fisheries sector because of the critical importance of fisheries management and environmental policies as well as information to the various links in the production chain. The private sector's role is vital in following best practices in fish harvesting, fish farming, handling, and processing.

Non-governmental organizations and donors are important sources of technical assistance, training, and investment capital in new products and environmental protection.

Responsibilities for Developing a National Export Initiative for the Fish Sector

Several of the critical groups in developing and implementing a national fisheries export initiative will include the following:

- *The Special Task Force on Export Competitiveness*, chaired by the Ministry of Finance, has lead responsibility in implementing the country's *Medium-Term Competitive Strategy for the Private Sector*. The Task Force will be the leading policy recommendation body that will propose actions to the President and Cabinet.
- *A Fisheries Sector Working Group* will be composed of leading members of the private sector representing all parts of the sector, as well as government institutions directly involved in developing the fisheries sector. This group will be the focal point of the national export initiative in the sector, making recommendations to both the public and private sectors.

- The *COMPETE Project*, funded by USAID, will provide technical assistance to the Working Group and provide advice to the Special Task Force and other governmental organizations.
- *Private sector associations*, such as the Uganda Fish Processors and Exporters Association, the Private Sector Foundation, and other non-governmental organizations will be key figures in an advisory capacity to the Working Group and will work closely with their constituents to transmit information on the new competitiveness efforts.
- *Public sector agencies*, such as the Department of Fisheries Resources and the National Environmental Management Authority, will be key players in the process. Relevant governmental departments and the Uganda Investment Authority will be partners in developing new initiatives and incentives for the fisheries sector.

Short and Longer-Term Work Plan

Development of fisheries' export potential will require a series of measures, some for the immediate short-term and others that will take several years to implement. A strategy for this development should therefore integrate these actions.

- *Initiation/announcement of the National Export Competitiveness Strategy at a National Conference on Fisheries to be held in 2001.*
Announcement by the president or cabinet of a 'national export initiative' that will involve a coordinated initiative not only between the public and private sectors in Uganda, but with neighboring countries as well. This announcement will be designed to mobilize broad support for this effort as well as promote information exchange among the various links of the production chain.
- *Year 1: Maintenance*
- Initiate a dialogue with Kenya and Tanzania regarding the maintenance and preservation of the lake in terms of water quality and fish stock.
- Support the initiatives already underway in terms of fishing and fish handling practices as well as environmental management.
- The Fisheries Working Group will develop and present to the Special Task Force a plan for the development of fish cage farming in Uganda as an approach to expanding the resource base for Uganda's fisheries. A study on breeding habits will commence, along with experimentation with appropriate infrastructure for fish cage farming.
- The Working Group, supported by the COMPETE project, will undertake market surveys of the opportunities for new products. This survey will also focus on non-traditional markets that heretofore Uganda processors and exporters have not investigated. This will be done in close cooperation with the Uganda Fish Processors and Exporters Association.

- *Years 2-5: Expansion and Improved Quality Image*
- Investment promotion initiatives will be undertaken with the Ugandan Investment Authority to attract international capital and technology into the development of fish cage farming and aquaculture.
- Maintenance of Ugandan Quality Seal for fish products.
- Based on development of new products, initiate public relations and advertising campaign for Ugandan fish products in foreign markets.
- Expand fish cage farming from Pilot Stage to a commercial scale.
- Enrichment of the total fisheries sector through specific programs on training, education, improved infrastructure, technical services, and financial services.

Expected results from the National Export Initiative for fisheries

- Enhancement of Uganda's market image with foreign buyers.
- New markets developed for diversified fish products.
- New by-products also developed for diversified markets.
- Increase in foreign exchange earnings from exports of fish and fish products.
- Plan developed for new fish cage farming initiatives, with pilot projects developed in different parts of the country.
- Improvement/development of improved fish receiving stations on Lake Victoria.
- Introduction and utilization of better practices in fish capture and handling.
- New regulations/guidelines on optimum fish harvesting practices.
- Communications/information strategy design to transmit information to fishing communities.
- Development of a Quality Seal concept to be awarded to fish exports that have passed certification procedures.
- Socio-economic development of the fishing community through a package of services.
- A self-regulatory protocol for the maintenance and preservation of Lake Victoria in terms of water quality and the stock to be signed by Uganda, Kenya and Tanzania.

Disclaimer

This document was prepared in the absence of having approval of the Fish Sector Working Group, and as such some of the action programs indicated may be modified to meet industry stakeholder needs.

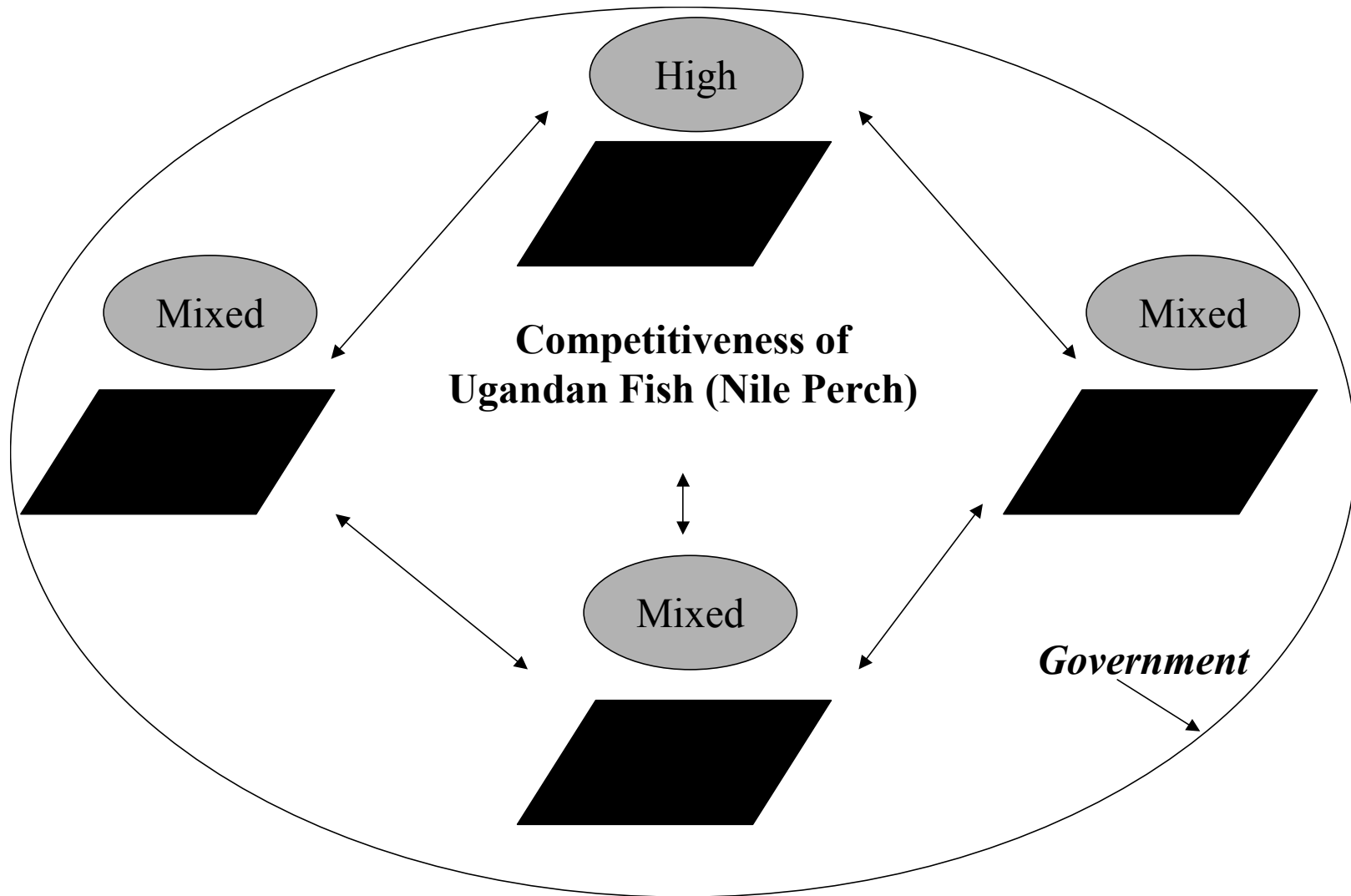
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ANNEX I

**The Competitiveness of Uganda's
Fish Exports**

A Competitive Diamond &
SWOT Analysis of
Fish

Uganda's Fish (Nile Perch) Exports: A Competitive Diamond



Competitiveness Diamond for Ugandan Fish (Nile Perch)

1. Strategy, Structure and Rivalry -- High

- + High Grade Processing Facilities
- + Depleting Cod Supply in Europe
- + High Demand for White Fish in Europe
- + Some Backward Integration
- + - Highly Dependent on Buyers, Some Strategic Partners
- + Trained Workers
- - Little Product Innovation
- - Little Forward Integration

2. Demand & Market -- Mixed

- + Fast Growing Market
- + Positive Future Consumption Trends in Europe and Asia
- + Weak Competition From Other Fish Producers
- + Demanding International Buyers
- + A High Quality Product
- - Little Knowledge of End User
- - Little Exposure to the World Market
- - Limited Market Research
- - Weak Trade Exposition Participation
- - Increased Competition from Kenya & Tanzania

3. Factors of Production -- Mixed

- + Large Fresh Water Resources
- + Increased Skills of Processing Workers
- + Private Capital and Entrepreneurs
- + Few Labor Problems
- +- Weak Levels of R&D
- +- Weak Infrastructure
- +- Weak Quality Control Facilities
- - Inadequate Fish Landing Sites
- - Inadequate Access to Ice & Refrigeration
- - Inadequate Research Backup

4. Cluster -- Mixed

- + Strong Private/Government Sector Role
- + Industry Associations Formed
- + Quality Standard Institute
- - Weak Supporting Services
- - Training Institutes Inadequate
- - Socio-Economic Support Structure Weak
- - Weak Finance Intermediaries

SWOT ANALYSIS OF THE FISH SECTOR

RESOURCES:

Strengths:

- Large fresh water resources
- Large population of fisherman
- The lakes adequately stocked with fish at present.
- Good quality of fish (Nile Perch)
- Water quality of lake free of pollution.

Weaknesses:

- Study on breeding habits of Nile Perch not available.
- No control mechanism for fish stock maintenance among the countries that share the lake.
- No coordination on control captured fish size.
- No adequate control on gill net sizes.
- Hook line fishing endangers future fish stock.
- No attempts made at fish cage culture to date.
- Inadequate Research backup on breeding, monoculture.
- Low level of Research and Development in the sector as a whole.
- Poor socio-economic extensions to Fisher families.
- Weak financial support structure to acquire and maintain fishing gear.
- Inadequate training facilities on better methods of capture and handling.

Opportunities:

- A joint management of Lake Victoria to preserve its water quality and fish stocks.
- Expanding fish stock by prevention of hook line method of capture and correct gill net size.
- Expanding fish stock by fish cage technologies.
- Developing cooperation between fish harvesting, handling, processing and transport activities.
- Improved communication and extension among fishing communities.

Threats

- Possible pollution of water table.
- Depletion of fish stock due to over fishing.
- Danger to natural increase of fish stock due to hook line fishing.
- Unlawful methods of fish capture (poison) resulting in export ban.
- Maintaining the health of the fish.
- New industries on borders of Lake disposing waste.
- The leakage of fish harvest to Kenya.
- Unplanned urbanization around the Lake increasing sanitation problems.

SWOT ANALYSIS OF THE FISHERIES SECTOR	
PROCESSING AND HANDLING:	
Strengths: <ul style="list-style-type: none"> • More efficient fish receiving stations being built. • Good cooperation/linkages among Fisherman, handlers and processors. • High quality processing factories. • High quality fish quality control facility. • Improved methods of handling harvested fish 	Weaknesses: <ul style="list-style-type: none"> • High level of wastage of fish carcasses. • Poor use of 'waste' as by products. • Weak infrastructure. • Inadequate access to ice and cold rooms • Poor post harvest handling
Opportunities: <ul style="list-style-type: none"> • Upgrading fish carcasses into medium and high quality fish products. • Increased fish meal production from waste. • Improving fish handling technology. • Expansion of modern fish receiving stations on Lake Victoria. 	Threats: <ul style="list-style-type: none"> • Maintenance of processing facilities. • Keeping the cost price ratios stable. • Fall back on quality processing. • Depletion of supply of fish.

SWOT ANALYSIS OF THE FISHERIES SECTOR

MARKET:

Strengths:

- Demand for Perch as a substitute for cod increasing in Europe and USA.
- European Union certified Export quality.
- Fish harvested from pollution free waters.
- New markets in USA.

Weaknesses:

- Limited exposure to the market place.
- No joint marketing of Nile Perch in Europe by the three suppliers.
- Un coordinated marketing efforts among Ugandan exporters.
- No diversification in product offered.

Opportunities:

- Enhancement of Uganda market image with foreign buyers.
- New markets developed for diversified fish products.
- New fish products for diversified markets.

Threats:

- Ability to maintain continuously the of quality of export fish.
- Fall in quality image.
- Failure in transport and delivery.
- Poor road transport to port of Mombassa.

ANNEX II

MEMORANDUM TO THE SPECIAL TASK FORCE ON EXPORT COMPETITIVENESS

**MEMORANDUM TO THE SPECIAL TASK FORCE
ON EXPORT COMPETITIVENESS**

**STRENGTHENING THE EXPORT COMPETITIVENESS OF
UGANDA'S FISHERIES SECTOR**

The Challenge:

- Uganda's fish is the country's second most important export sector. Its export product, principally Nile Perch (*Lates Niloticus*), is highly valued and competitive in world markets.
- It is estimated that the maximum sustainable yield of Nile Perch from Lake Victoria will permit Uganda to double its current exports to around \$100-\$120 million.
- Strict environmental and stock management of this natural resource is indispensable if Uganda is to meet these targets and sustain them.
- However, to expand beyond these targets, Uganda must protect its existing stock and look for new sources of fish, such as fish farming and aquaculture.
- The sector also needs to explore the potential for product and market diversification from its current production.

The Problem:

- Preservation and sound management of fish resources remain a major challenge for the sector
- Poor fish harvesting practices by local fishermen which damage and reduce the stocks must be addressed
- Maintaining the quality of the processed product must be addressed on a continuous basis.
- Lack of proper infrastructure such as strategically located landing, transit and cooling facilities has led to loss of fish for Ugandan processors.
- A large portion of harvested perch (67%) is not processed into exportable products.

The Opportunity:

- Ugandan white fish, namely Nile Perch, is highly valued in developed country markets, a trend that is likely to continue.
- Fish farming offers enormous potential for fish stock expansion and diversification, with very positive impacts on exports.
- Modified and diversified fish processing can provide new products for exports to existing and new markets.

The Strategy:

- Uganda needs to address the need not only to preserve its current stocks but also to expand future fish production through fish farming and aquaculture.
- The focus must be on taking advantage of the very favorable conditions for fish farming and expanding this production throughout the country.
- Significant resources for infrastructure and technical assistance need to be provided to creating this new initiative to expand fish production

Action Steps:

- Vigorous action needs to be taken to preserve and maintain existing fish resources in Lake Victoria and other inland waterways
- Fish stocks must be expanded, namely through fish farming, by bringing in the technology, investment, and infrastructure needed to support this effort
- New market opportunities for diversified fish products in non-traditional markets need to be investigated, enabling Uganda to significantly increase its exports from current resources
- Infrastructure needs to be strengthened for both traditional and new fish products.
- Information and human resource development will be essential to building future competitiveness.
- Finance and credit facilities must be expanded to support the fishing sector.
- Institutions must be developed to work within the fishing communities to communicate information about best practices.

The Participants and their Roles:

- The Special Task Force on Export Competitiveness, to take the lead in recommending government policies and initiatives
- The Fisheries Sector Working Group, composed principally of private sector representatives, will drive the process of competitive reforms.
- The COMPETE team, funded by USAID, to advise the Working Group
- Private sector organizations such as the Uganda Fish Processors and Exporters Association and the Private Sector Foundation to coordinate activities in the sector
- Public sector agencies including the Uganda Investment Authority that can improve the operating environment for fisheries and attract foreign technology and capital.

Short and Long Term Plan:

- *Initiation/announcement of the National Fisheries Export Initiative*
- Announced by the President and the Cabinet to mobilize broad support for the initiative.
- Year 1 Action Plan -- Maintenance
- Initiate dialogue with Kenya and Tanzania regarding the preservation of Lake Victoria, its water quality, and its stock.

- Support the on-going initiative to develop and utilize better handling methods.
- Initiate a feasibility study of fish farming, focusing on breeding, infrastructure, ecology, training and cost.
- Undertake market surveys for opportunities in new, high value and medium value fish products, apart from fish fillets.
- *Years 2-5 -- Expansion and Increased Quality Image*
- In collaboration with the Uganda Investment Authority, initiate investment promotion activities to attract international capital.
- Work towards developing a specific Quality Seal for Uganda fish products
- Based on the development of new products, expand into new and existing markets.
- With regards to fish farming, move from the pilot stage to a commercial stage.
- Work towards the development of a total package of services for the fish sector. Possible focus could be on investment, regulatory environment, information, training, and finance.

Expected Results from the National Export Initiative for Fisheries:

- Enhancement of Uganda's market image and quality assurance with foreign buyers.
- New markets developed for diversified fish products.
- New by-products developed for non-traditional markets.
- Increase in foreign exchange earnings from exports of fish and fish products.
- New fish farming initiatives with pilot projects developed throughout the country.
- Improvement and development of new fish landing facilities on Lake Victoria.
- Introduction and utilization of better practices in fish capture and fish handling.
- New regulations and guidelines for optimum fish harvesting practices.
- Information campaign to transmit information to fishing communities.
- Development of 'quality seals' to be awarded fish processors that meet high processing standards for export.
- Socio-economic development of the fishing community through a package of services.
- A self-regulatory protocol for maintenance and preservation of Lake Victoria with regards to the water quality and fish stock signed by Uganda, Tanzania, and Kenya.

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